Name:	
Date: _	

Final Examination

Answer Key to Final Exam I

- 1. C
- 2. B (according to S.6., the nominal capacity may not exceed CLC x (N 0.5); here 50,000 x (4 0.5) = 175,000.
- 3. A
- 4. B (since the scales in a multiple-weighing system constitute a single element, this system has a total of 15,000 divisions ($60,000/20 \times 5$), exceeding the limitation of S.5.2. and Table 3 (10,000 divisions).
- 5. D
- 6. A
- 7. B
- 8. A
- 9. C
- 10. D
- 11. A
- 12. C
- 13. A
- 14. B
- 15. D
- 16. A, B, C, E, G, I
- 17. **C**
- 18. A
- 19. C
- 20. A

For Part II see completed worksheets

Name:	 _
Date: _	

ME		OLERANCE			CALE	
ME	CHANICAL I			OR AXLE-LOAD S		10,000 lb
DIAL CAPACITY:		20,000 lb			500 d	
CLC or SECTION CAP	ACITY	,	000 lb		1000 d	20,000 lb
SCALE CAPACITY		100,000 lb			1500 d	30,000 lb
VALUE OF SCALE DI		20 lb			2000 d	lb
NUMBER OF SCALE			5000		2500 d	lb
AVAILABLE CERT. T WEIGHTS	EST	30,0	000 lb		3000 d	lb
MARKED IIIL	Yes	X No			3500 d	lb
TOLERANCE TO BE					l	
APPLIED	X ACCEPT	ΓANCE		MAINTEN	ANCE	
TEST LOAD	TEST		•		ACCEPTA	BLE RANGE
DESCRIPTION	LOAD	TOLERAN	NCE	TOLERANCE	OF SCALE	3
	POUNDS	in		in	INDICATION	ON
INCREASING-LOAD	AND SHIFT	d		d	Minimum	Maximum
TEST					Pounds	Pounds
At ¼ dial capacity	5,000	0.5		10		
At ½ dial capacity	10,000	0.5		10		
At ¾ dial capacity	15,000	1		20		
At full dial capacity	20,000	1		20		
At each unit weight	20,000	1		20		
SHIFT TEST						
AT ½ CLC,						
SECT.CAP, OR TEST LOAD:	15,000	1		20		
Range of Results Must b	be within:	2		40		
CONTINUE INCREAS		ND SHIFT TE	ST AT	EACH TOLERANG	E BREAK F	POINT
	30,000	1.5		30		
	,					
SHIFT TEST AT CLC,			ΓEST L		T	
	30,000	1.5		30		
Range of Results must b	e within:	3		60		
DECREASING-	15,000	1		20		
LOAD TEST (at ½		_				
AVAILABLE LOAD)						
STRAIN-LOAD	30,000	1.5		30		
TEST (applied only to	, , , , , , ,			-		
certified test weights)						
ZERO-BALANCE CHANGE	0	0.5		10		

Name:	
Date:	

MECHANICAL DIAL – VEHICLE OR AXLE-LOAD SCALE DIAL CAPACITY: CLC or SECTION CAPACITY b 500 d 1000 d	lb
DIAL CAPACITY: 500 d	1h
DIAL CAPACITY: 500 d	
	lb
SCALE CAPACITY lb 1500 d	lb
VALUE OF SCALE DIVISION Ib 2000 d	lb
NUMBER OF SCALE DIVISIONS 2500 d	lb
AVAILABLE CERT. TEST lb 3000 d	lb
WEIGHTS	
MARKED IIIL Yes No 3500 d	lb
TOLERANCE TO BE	
APPLIED ACCEPTANCE MAINTENANCE	
TEST LOAD TEST ACCEPTABLE	RANGE
DESCRIPTION LOAD TOLERANCE TOLERANCE OF SCALE	
POUNDS in in INDICATION	
	M aximum
	ounds
At ¼ dial capacity	
At ½ dial capacity	
At ¾ dial capacity	
At full dial capacity	
At each unit weight	
SHIFT TEST	
AT ½ CLC,	
SECT.CAP, OR TEST	
LOAD:	
Range of Results Must be within:	
CONTINUE INCREASING-LOAD AND SHIFT TEST AT EACH TOLERANCE BREAK POIN	JT
SHIFT TEST AT CLC, SECTION CAPACITY, OR TEST LOAD CAPACITY	
Jan 1 125 1 11 CEG, SECTION, CHARLETT, ON TEST BOTH CHARLETT	
Range of Results must be within:	
Tambe of Attourn Masse of Hammi	
DECREASING-	
LOAD TEST (at ½	
AVAILABLE LOAD)	
STRAIN-LOAD	
TEST (applied only to	
certified test weights)	
ZERO-BALANCE	
CHANGE	

Name:	
Date:	

		OLERANCE C – VEHICLI		KSHEET AXLE-LOAD SCA	LE	
CLC or SECTION CAPACITY		60,000 lb		AALE-LOAD SCA	500 d 1000 d	10,000 lb 20,000 lb
SCALE CAPACITY		100.0	000 lb		1500 d	30,000 lb
VALUE OF SCALE DI	VISION	100,0	20 lb		2000 d	lb
NUMBER OF SCALE	DIVISIONS		5000		2500 d	lb
AVAILABLE CERT. T WEIGHTS	EST	30,0	000 lb		3000 d	lb
MARKED IIIL	X Yes	No	'		3500 d	lb
TOLERANCE TO BE APPLIED	AC	CEPTANCE		X	MAI	INTENANCE
TEST LOAD DESCRIPTION INCREASING-LOAD A TEST AT EACH TOL.		TOLERANCE in in d		ACCEPTAI OF SCALE INDICATIO Minimum Pounds		
POINT	10,000	1		20		
	10,000	1		20		
SHIFT TEST						
AT ½ CLC, SECT.CAP, OR TEST LOAD:	15,000	2		40		
Range of Results Must b	e within:	2		40		
CONTINUE INCREAS	ING-LOAD AN	ND SHIFT TES	ST AT	EACH TOLERANG	E BREAK P	OINT
	20,000	2		40		
	30,000	3		60		
SHIFT TEST AT CLC,			TEST L		<u> </u>	
D CD 1	30,000	3		60		
Range of Results must b	e within:	3		60		
DECREASING- LOAD TEST (at ½ AVAILABLE LOAD)	15,000	2		40		
STRAIN-LOAD TEST (applied only to certified test weights)	30,000	3		60		
ZERO-BALANCE CHANGE	0	1		20		

Name:	
Date:	

		OLERANCE C _ VEHICL		KSHEET AXLE-LOAD SCA	I F		
	ELECTRONI	C = VEIIICE		AALE-LOAD SCA			
CLC or SECTION C	APACITY	lb		500 d	lb		
					1000 d	lb	
SCALE CAPACITY			lb		1500 d	lb	
VALUE OF SCALE DI			lb		2000 d	lb	
NUMBER OF SCALE					2500 d	lb	
AVAILABLE CERT. T WEIGHTS	EST		lb		3000 d	lb	
MARKED IIIL	Yes	No			3500 d	lb	
TOLERANCE TO BE APPLIED	AC	CEPTANCE			MAI	NTENANCE	
TEST LOAD DESCRIPTION	TEST LOAD POUNDS			TOLERANCE in	OF SCALE INDICATION	ΓABLE RANGE LE	
INCREASING-LOAD A TEST AT EACH TOL. POINT		d		d	Minimum Pounds	Maximum Pounds	
SHIFT TEST							
AT ½ CLC,							
SECT.CAP, OR TEST							
LOAD:							
Range of Results Must b							
CONTINUE INCREAS	ING-LOAD AN	ND SHIFT TE	ST AT	EACH TOLERANG	CE BREAK P	OINT	
SHIFT TEST AT CLC,	SECTION CAP	PACITY, OR T	TEST L	OAD CAPACITY			
Range of Results must b	o within:						
Range of Results must b	within.						
DECREASING-							
LOAD TEST (at 1/2							
AVAILABLE LOAD)							
STRAIN-LOAD							
TEST (applied only to							
certified test weights)							
ZERO-BALANCE CHANGE							

Name:	
Date:	

FILI		OLERANCE '		KSHEET OR AXLE-LOAD	SCALE	
				OK AALE-LOAD	JCALE	
BEAM CAPACITY		100,000 lb			500 d	5,000 lb
FRACTIONAL BAR C		990 lb			1000 d	10,000 lb
CLC or SECTION CAP	ACITY		00 lb		1500 1	,
SCALE CAPACITY	Malon	100,0			1500 d	15,000 lb
VALUE OF SCALE DI NUMBER OF SCALE			10 lb		2000 d	20,000 lb
AVAILABLE CERT. T		10),000		2500 d	25,000 lb
WEIGHTS	ES I	30,0	00 lb		3000 d	3 0,000 lb
MARKED IIIL	Yes	X No			3500 d	lb
TOLERANCE TO BE						
APPLIED	AC	CCEPTANCE		X		INTENANCE
TEST LOAD	TEST				ACCEPTA	BLE RANGE
DESCRIPTION	LOAD	TOLERAN	CE	TOLERANCE	OF SCALE	
	POUNDS	in		in	INDICATION	
INCREASING-LOAD		d		d	Minimum	Maximum
TEST AT EACH TOL.	BREAK				Pounds	Pounds
POINT						
at ½ fractional bar cap.	500	1		10		
at full fractional bar	990	1		10		
cap.	220	_				
At each tolerance	5,000	1		10		
breakpoint.	,					
	10,000	2		20		
SHIFT TEST						
AT ½ CLC,	4 7 000			20		
SECT.CAP, OR TEST	15,000	3		30		
LOAD:	*.1 *					
Range of Results Must b		3	100 A 00	30	SE DDE A IZ E	ODVE
CONTINUE INCREAS			or AT		E BREAK F	UINT
	20,000	4		40		
	25,000	5		50		
	30,000	6		60		
SHIFT TEST AT CLC,	L SECTION CAT	 PACITY OR T	FSTI	OAD CAPACITY		1
SIM I ILSI AI CLC,	30,000	6	LUIL	60		
Range of Results must b	,	6		60		
STRAIN-LOAD				00		
TEST (applied only to	30,000	6		60		
certified test weights)	,					
ZERO-BALANCE	0			40		
CHANGE	0	1		10		

Name:	
Date:	

FULL		OLERANCE BEAM – VEI		KSHEET C OR AXLE-LOAD	SCALE	
BEAM CAPACITY		lb			500 d	lb
FRACTIONAL BAR CAPACITY		lb			1000 d	lb
CLC or SECTION CAPACITY			lb			
SCALE CAPACITY			lb		1500 d	lb
VALUE OF SCALE DIVISION			lb		2000 d	<u>lb</u>
NUMBER OF SCALE DIVISIONS AVAILABLE CERT. TEST					2500 d	<u>lb</u>
WEIGHTS	LSI		lb		3000 d	lb
MARKED IIIL	Yes	No			3500 d	lb
TOLERANCE TO BE		•				
APPLIED		CCEPTANCE		T	MAINTENANCE	
TEST LOAD	TEST	TOLED AN	ICE	TOLED ANCE	ACCEPTABLE RANGE	
DESCRIPTION	LOAD POUNDS	TOLERANCE TOLERANCE in in		in	OF SCALE INDICATION	
INCREASING-LOAD A		d		d	Minimum	Maximum
	TEST AT EACH TOL. BREAK			u u	Pounds	Pounds
POINT						
at ½ fractional bar cap.						
at full fractional bar						
cap.						
At each tolerance						
breakpoint.						
SHIFT TEST						
AT ½ CLC,						
SECT.CAP, OR TEST						
LOAD:	:41-:					
Range of Results Must b		ID SHIET TE	ТА Т2	EACH TOLEDANG	E BDEVK D	OINT
CONTINUE INCREAS	ING-LOAD AI		31 AI		L DKLAK I	
	CECTION CAI	DACITY OD 7	грет і	OAD CADACITY		
SHIFT TEST AT CLC,	SECTION CAI	PACITY, OR	IESIL	DAD CAPACITY		
Range of Results must b	e within:					
STRAIN-LOAD						
TEST (applied only to						
certified test weights)						
ZERO-BALANCE						
CHANGE						

Name:		
Date:		